

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with John De Luca on 17 July 2009.

The application has been amended as follows:

#### **In the Specification:**

- a. In the paragraph inserted by amendment on 30 March 2009 at line 4 of the paragraph, please delete "near uniformly in all directions to provide good angular isotropy" and insert --uniformly in all directions to provide angular isotropy-- before the words "of said".
- b. On page 1 at line 13, please delete "and recently allowed" and insert -- now U.S. Patent No. 6,689,949-- before the words ", the contents of which".
- c. On page 8 at line 11, please delete the blank and insert --No. 6,689,949-- before the period.
- d. On page 15 at lines 14-15, please delete "\_\_\_\_\_ [D-2K042]" and insert --No. 6,689,949-- after the word "Patent".
- e. On page 22 at line 10, please delete the blank and insert --No. 6,689,949-- after the words "U.S. Patent".

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**In the claims:**

- a. Please cancel claims 10, 21, and 34-37.
- b. In claim 1 at line 5, please delete "of about 60 to about 70%" after the word "efficiency".
- c. In claim 1 at lines 9-10 please delete the words "for the cavity" after the words "area of  $A_i$ ".
- d. In claim 1 at line 13, please delete "total aperture area of the opening being in a ratio of up to" and insert --ratio of  $A_i$  to  $A_s$  is-- before "about 0.01".
- e. In claim 1 at line 13, please insert --or less-- after "about 0.01".
- f. In claim 1 at line 14, please delete "of the total internal surface area of the cavity," before the words "such that".
- g. In claim 1 at lines 21-22, please delete "for intercepting and concentrating the laser radiation" and insert --and adjacent the light input aperture or opening, wherein the concentrator is configured to focus the beam--
- h. In claim 1 at line 23, please delete "and for directing the radiation" and insert --or opening and to direct the focused beam-- after the word "aperture".
- i. In claim 5 at lines 7-8, please delete "the beam into said opening" and insert --the radiation to said secondary concentrator-- after the words "the beam".
- j. In claim 8 at lines 3-4, please delete "at optimal" and insert --, highest-- before the word "concentration".

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- k. In claim 9 at lines 4-5, please delete "near uniformly in all directions to provide good angular isotropy" and insert --uniformly in all directions to provide angular isotropy-- before the words "of said".
- l. In claim 13 at lines 14-15, please delete "said wavelength filter comprising at least one of a Rugate filter and stack interference filters" and insert --said at least one wavelength filter being selected from the group consisting of Rugate filters and a combination of Rugate filters and stack interference filters-- before the words ", providing selective transmission".
- m. In claim 15 at line 5, please delete "coherent light" and insert --a coherent light beam-- after the word "emitting".
- n. In claim 15 at line 11, please insert the word --initial-- before the word "diameter".
- o. In claim 15 at line 11, please insert the word --beam-- after the word "light".
- p. In claim 15 at line 11, please delete the word "and" and insert the words --said opening-- before the word "having".
- q. In claim 15 at lines 13-14, please delete "said opening having an entrance aperture area  $A_i$  of in a ratio of up to about 0.01 of the total internal surface area of the cavity" and insert --wherein the ratio of  $A_i$  to  $A_s$  is about 0.01 or less-- before the words ", such that".
- r. In claim 15 at line 18, please delete the word "internals" and insert the word --internal-- before the words "surface area".

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- s. In claim 15 at line 19, please delete the word "entrance" and insert the word --total-- before the words "aperture area".
- t. In claim 15 at line 19, please insert the word --beam-- after the word "light".
- u. In claim 15 at lines 25-26, please delete "for intercepting and concentrating said light from the selected diameter" and insert --configured to intercept and concentrate said light beam from the initial diameter-- after the words "primary concentrator".
- v. In claim 15 at line 27, please delete the word "that" and insert --than-- after the word "smaller".
- w. In claim 15 at lines 28-29, please delete "coupled to the for receiving said concentrated light" and insert --adjacent to the opening and configured to receive the concentrated light beam-- after the words "secondary concentrator".
- x. In claim 15 at line 30, please delete "concentrating said light" and insert --focus said concentrated light beam-- after the word "further".
- y. In claim 15 at lines 32-35, please delete "injecting the light into the housing through the aperture; and." and insert --inject the focused light beam into the housing through the opening.--
- z. In claim 16 at line 2, please insert the word --primary-- before the word "concentrator".
- aa. In claim 24 at lines 3-4, please delete "maximal acceptance angle, maximal concentration, and minimal height" and insert --maximum acceptance

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angle, highest concentration, and minimum height-- after the words "combination of".

bb. In claim 25 at line 1, please delete the number "21" and insert --15-- after the word "Claim".

cc. In claim 25 at line 4, please delete the word "near" before the word "uniformly".

dd. In claim 25 at line 5, please delete the word "good" before the word "angular".

ee. In claim 30 at line 8, please delete the word "and" and insert the word --or-  
- after the words "Rugate filters".

2. The following is an examiner's statement of reasons for allowance:

The limitations in claim 1 that the concentrator be adjacent the light input aperture or opening and that the concentrator be configured to focus the beam to a selected beam diameter smaller than the diameter of the aperture or opening and analogous limitations in claim 15 are considered to provide patentable distinction over the prior art of record, particularly Ronwin and Rao et al.

Ronwin provides a "middle compartment 24 where light is concentrated", but the diagram shown in Figure 1 of Ronwin and the corresponding disclosure appears to indicate that the concentration intended by Ronwin is the result of continuing light flux into the chamber via light transferring means 58 while shutter 32 is closed. No teaching

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or suggestion of a concentrator "configured to focus the beam to a selected beam diameter smaller than the diameter of the aperture or opening" is present in Ronwin.

Rao et al (e.g. Figure 3) provides a teaching of a concentrator capable of providing focusing as claimed, but there is no fair teaching or suggestion that such a concentrator be placed adjacent an aperture of Ronwin as currently claimed. Ronwin teaches light guides 58 and 28 adjacent light input apertures, which lack the claimed configuration. Therefore, these limitations provided in conjunction with the other limitations recited in the claims are considered to be patentably distinguished from the prior art of record.

The approval of the Terminal Disclaimer over U.S. Patent No. 6,689,949 obviates all issues of obviousness-type double patenting.

Note also that Applicant has submitted a substitute drawing sheet (Filed 28 July 2009) that supplies a label to FIG. 3 that was previously missing. The substitute drawings are acceptable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Jeffrey T. Barton whose telephone number is (571)272-1307. The examiner can normally be reached on M-F 9:00AM - 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeffrey T. Barton/  
Examiner, Art Unit 1795  
28 July 2009